# LETTERS TO THE EDITOR

## Inverted left atrial appendage

*To the Editor:*

In the issue of August 1997 of the Journal, Allen and coauthors[1] reported two cases of inverted left atrial appendage. In the first patient, a 5-month-old child with tetralogy of Fallot, the problem was recognized on the postoperative echocardiogram and was followed conservatively. In the second, a 54-year-old woman, the inverted left atrial appendage was seen on the intraoperative transesophageal echocardiogram and was treated promptly by surgical eversion.

I would like to report my experience with a 4-year-old child who had undergone surgical repair for a partial form of atrioventricular septal defect. The postoperative echocardiogram showed adequate repair without residual defects, but with a new left atrial mass (Fig. 1). Magnetic resonance imaging confirmed that the mass had the same characteristics as the left atrial wall (Fig. 2). Because of the potential risk for systemic embolism or arrhythmias, the inverted left atrial appendage was surgically treated. The rest of the postoperative course was uneventful and the child is free of symptoms 4 years after the operation.

I have several comments:

- Allen and Ilbawi, in their literature review, reported that only one case of inverted left atrial appendage in a child with inlet ventricular septal defect had been presented.[2] In fact, there are two other cases, a 5-month-old patient with complete atrioventricular septal defect and a 6-month-old patient with tetralogy of Fallot, with the same problem of inverted left atrial appendage. These were reported previously by the same group in Chicago, Illinois, with Dr. Ilbawi as senior author.[3] From the clinical history, it seems that the patient with tetralogy of Fallot is the same child described in *The Journal Thoracic Cardiovascular Surgery* by Allen and Ilbawi.[1]
- How did Allen and coauthors decide that echocardiography is the imaging method of choice to differentiate between inverted left atrial appendage and thrombus or vegetation when, to my knowledge, there are only three cases reported in the literature?
- I believe that magnetic resonance imaging has a role in this postoperative complication, because it can distinguish between thrombus, vegetation, and atrial wall.
- Intraoperative transesophageal echocardiography, now performed routinely, should be able to rule out this complication.
- With regard to the cause of inversion of the left atrial appendage, it is likely that this occurs during the routine inversion of the left auricular appendage during deairing maneuvers. There is only one anecdotal report of a specimen with tetralogy of Fallot and intussusception of the left atrial appendage (Richard Van Praagh, personal communication, 1995).
- Inasmuch as conservative treatment for inversion of the left atrial appendage has been reported in only one patient, I contest Allen's conclusion that this complication "can be left alone because it usually gets better with time and it cannot embolize."

In my opinion, intussusception of the left atrial appendage is a surgical complication that can be prevented by (1) careful inspection of the left auricular appendage at the end

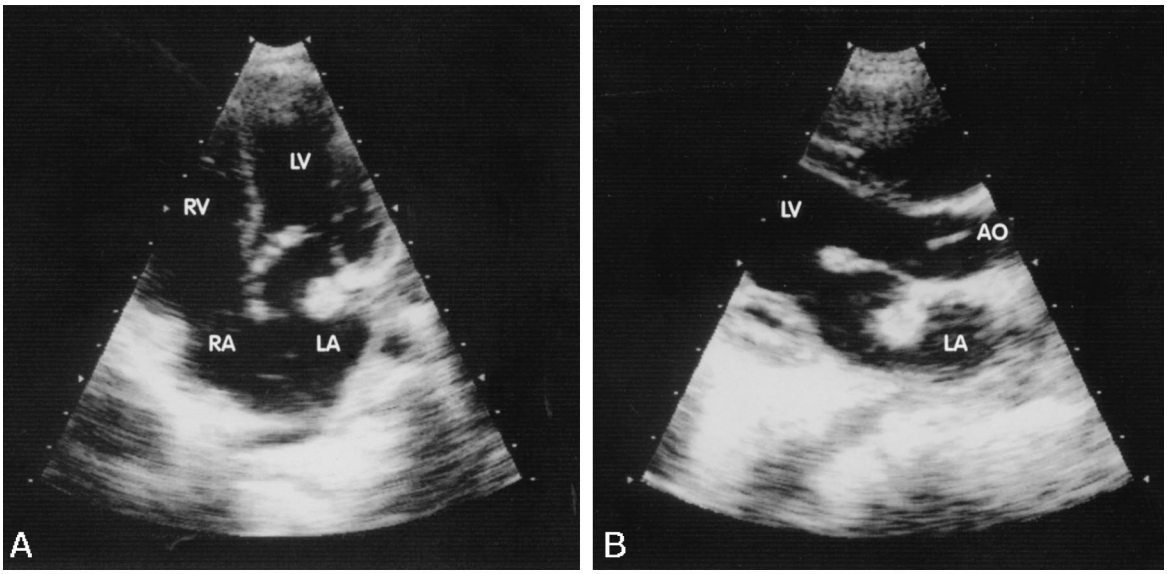


**Fig. 1.** Echocardiograms in two views (**A** and **B**) showing the intussusception of the left atrial appendage. *AO,* Aorta; *LA,* left atrium; *LV,* left ventricle; *RA,* right atrium; *RV,* right ventricle.

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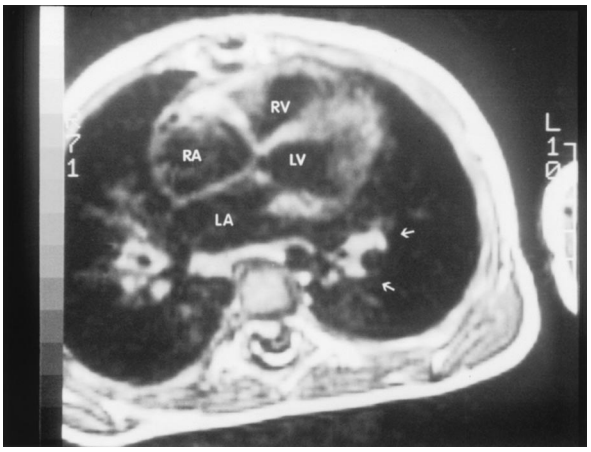


**Fig. 2.** Magnetic resonance imaging showing the intussusception of the left atrial appendage *(arrows). LA,* Left atrium; *LV,* left ventricle; *RA,* right atrium; *RV,* right ventricle.

of cardiopulmonary bypass and (2) intraoperative transesophageal echocardiography. Once the complication is diagnosed in the postoperative period, there are not sufficient prerequisites to opt for conservative or surgical treatment.

*Antonio F. Corno, MD, FRCS*
*University of Lausanne*
*Clinique de Genolier*
*CH-1272 Genolier, Switzerland*

REFERENCES

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